



Dialysis Dialogue

Winter 2004

Infection Control Precautions for Patients with Catheters

Should surgical masks and/or face shields be worn when working with patients who have catheters for vascular access? While it is true the CDC has no recommendations for wearing a mask or face shield during hookup and takedown, the National Kidney Foundation Kidney/Dialysis Outcomes Quality Initiative, Vascular Access Guidelines Recommends the following:

“Considerations for Accessing the Bloodstream Using Catheters—

- The catheter hub caps or bloodline connectors should be soaked for 3 to 5 minutes in povidone iodine and then allowed to dry prior to separation.
- Catheter lumens should be kept sterile.
- To prevent contamination, the lumen and tip should never remain open to the air. A cap or



syringe should be placed on or within the catheter lumen, while maintaining a clean field under the catheter connectors.

- Patients should wear a surgical mask for all catheter procedures that remove the catheter caps and access the patient’s bloodstream.
- Dialysis staff should wear gloves and a surgical mask or face shield for all procedures that remove catheter caps and access the patient’s bloodstream.
- A surgical mask for the patient and mask or face shield for the dialysis staff should be worn for all catheter dressing changes.”

Catheters provide direct access to a patient’s bloodstream. It is expected that staff will take all precautions necessary to prevent contamination of the catheter opening. This means staff members will be expected to wear at least a mask. Patients should wear a mask whenever their catheter is being manipulated.

Welcome to this edition of *Dialysis Dialogue*, a newsletter published by the North Dakota Department of Health, Division of Health Facilities. *Dialysis Dialogue* is designed to help dialysis departments stay up-to-date on various issues. Please share with your dialysis staff.

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Testing for Chloramine

By Laura Hiebert, MS, LRD

Because dialysis patients are regularly exposed to gallons of water, it is important to assure the water is free of hazardous chemicals. One of the chemicals that must be closely monitored is chloramine.

Chloramine is an interesting chemical in that you cannot test directly for its presence. Chloramine is a component of total chlorine. (i.e. Total Chlorine – Free Chlorine = Chloramine.)

The maximum acceptable level for chloramine in water used for dialysis is 0.1 mg/l. There are two ways to determine if the chloramine level in dialysis water is acceptable:

First, you can test for total chlorine of less than 0.1 mg/l. It stands to reason, if total chlorine is less than 0.1mg/l, then chloramine (a component of total chlorine) will also be less than 0.1mg/l.

Second, you can test for total chlorine and free chlorine then subtract the amount of free

chlorine from the total chlorine. The result will be the chloramine content of the water.

The trick in utilizing the second method to determine chloramine is to use test strips that are sensitive enough to measure one tenth of one (0.1) milligram per liter.

There are test strips on the market that measure total chlorine at a sensitivity of 0.5mg/l. This means total chlorine is present in the water at a level less than or equal to 0.5mg/l.

While these test strips are adequate to measure total chlorine, (the maximum acceptable level for total chlorine in dialysis water is 0.5mg/l.) they are not sensitive enough to determine chloramine levels.

Suppose you used these test strips and the result was that the total chlorine was less than 0.5mg/l. This is acceptable for total chlorine.



Now suppose you test for free chlorine and get a level of 0.3 mg/l. If your total chlorine was 0.4mg/l (an amount < 0.5mg/l). In this case, total chlorine (0.4) – free chlorine (0.3) = chloramine (0.1). This is an acceptable chloramine level.

However, maybe the total chlorine level is 0.5mg/l. In this case, total chlorine (0.5) – free chlorine (0.3) = chloramine (0.2). This is not an acceptable chloramine level. The problem is, you can't say for sure what your total chlorine level is because the test strip isn't sensitive enough to detect levels of chlorine less than 0.5mg/l.

If you choose the second method of determining chloramine, both the total chlorine and the free chlorine test strips must be sensitive enough to detect one tenth (0.1) of a milligram of the chemical.

Of course, the easiest way to assure acceptable chloramine levels is to require total chlorine levels to be less than 0.1mg/l.

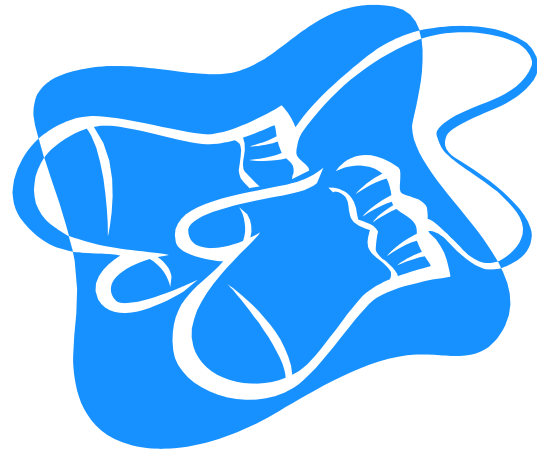
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Gambro Cartridge Blood Sets Indicated in Pennsylvania Health Incidents

During December 2003, incidents involving Gambro Cartridge Blood Sets for Century 3 Machines were reported in the Pennsylvania Department of Health event reporting system (ERS). The incidents occurred in a hospital based dialysis unit and in two satellite dialysis units.

Micro bubbles were noted to develop below the venous alarm clamp in Gambro Cartridge Blood Sets/Lines for four different patients. These bubbles appeared between 10 and 60 minutes into the dialysis run.

The facilities pulled Gambro Cartridge Blood Sets from service, and notified the Gambro Company of the events. Representatives from the Gambro Company checked the machines involved in the incidents. All of the machines were found to be in working order.



Facilities providing dialysis and using like products are urged to observe those blood sets during treatment and to take steps necessary to protect patients' health and safety during dialysis treatment.

The suspected blood sets come from lot numbers 10J15346 and 10J15326.

ESRD Resource Website—New and Improved

CMS has updated its ESRD resource website. It now contains links to the ESRD regulations, forms, provider updates, manuals, Dialysis Facility Compare, Networks, Quality Initiatives, and organizational links. The website can be accessed at <http://cms.hhs.gov/providers/esrd.asp>.



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